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**UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF CALIFORNIA  
SAN DIEGO DIVISION**

ODYSSEY WIRELESS, INC.

Plaintiff,

v.

MOTOROLA MOBILITY LLC,

Defendant.

Case No. 3:15-CV-01741-H-RBB

**PLAINTIFF ODYSSEY'S  
MEMORANDUM OF POINTS  
AND AUTHORITIES IN  
OPPOSITION TO  
MOTOROLA'S DAUBERT  
MOTIONS**

Date: September 12, 2016

Time: 10:30 a.m.

Judge: Hon. Marilyn L. Huff

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18	J. Gregory Sidak & Jeremy O. Skog, <i>Using Conjoint Analysis to Apportion Patent Damages</i> , 25 The Federal Circuit Bar Journal 4 (June 2016).
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22	Excerpts of Deposition of Graham McKay [Motorola]
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24	Supplemental Expert Report Exhibits of Roy Weinstein [Motorola]
25	Excerpts of Deposition of Carla Mulhern
26	Excerpts of Expert Report of Matthew Valenti
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## 1 I. INTRODUCTION

2 Odyssey anticipated that Defendants would raise numerous objections to any  
 3 damages analysis it offered—no matter how relevant, no matter how reliable. Odyssey  
 4 thus went to substantial lengths to support four separate approaches for determining a  
 5 reasonable royalty for Defendants’ sales of 4G LTE devices using Dr. Karabinis’  
 6 invention. Each is situated within the *Georgia-Pacific* hypothetical negotiation, each  
 7 is structured to pinpoint the incremental value attributable to the invention, and each is  
 8 rigorously tied to the relevant facts and to the invention’s footprint in the marketplace.  
 9 By and large, Defendants do not contest the overarching methodologies at issue.  
 10 Instead, they ask the Court to evaluate the precision of many of the “data points” used  
 11 as factual inputs. In effect, Defendants simply throw everything against the wall to see  
 12 what sticks. Nothing should. Defendants’ many complaints and issues with the  
 13 underlying facts—including whether, for example, anonymous Internet comments  
 14 posted by readers such as “TheRequiem” undermine a national study of upload and  
 15 download speeds—can and should be addressed through cross-examination.

16 Odyssey retained four leading experts to provide analyses and opinions: Mr.  
 17 Brad Armstrong, a marketing expert with 35 years’ experience developing advertising  
 18 campaigns for prominent companies such as Walmart and Coca-Cola, Ex.1; Dr. Mung  
 19 Chiang, a wireless communications expert and Princeton professor with a Stanford  
 20 Ph.D., Ex.2; Dr. Scott Savage, an associate professor of economics at the University  
 21 of Colorado specializing in survey and statistical analysis with a focus on conjoint  
 22 surveys, Ex.3; and Mr. Roy Weinstein, an economist with 47 years’ experience in  
 23 economic research and consulting, including decades analyzing patent damages, Ex.4.

24 Armstrong analyzed marketing materials from Defendants and the wireless  
 25 carriers and determined that these materials emphasized that the key consumer benefit  
 26 of 4G LTE is speed. Ex.5. Chiang analyzed the relevant data to determine that 20% of  
 27 the uplink speed increase from 3G to 4G LTE is due to the invention. Ex.6; Ex.7.  
 28 Savage performed two studies: a conjoint survey analysis that showed what



1 consumers were willing to pay for the additional uplink speed provided by Dr.  
 2 Karabinis' invention; and a statistical analysis of market data conservatively  
 3 measuring the value of a 4G LTE device over a 3G device to a consumer. Ex.8.  
 4 Weinstein considered the opinions provided by these experts—along with numerous  
 5 additional studies, documents, and the extensive materials collected in this case—to  
 6 provide four separate approaches for measuring the incremental value attributable to  
 7 the invention as reasonable royalty damages. Ex.9. Each approach involves a detailed  
 8 analysis, ultimately determining a royalty rate generally less than \$2 per device. *Id.* At  
 9 a high level, the valuation methodologies may be described as follows.

10 *For Approach 1*, Weinstein starts with Savage's determination of the value of a  
 11 4G LTE device over a 3G device. Weinstein then removes the costs to Defendant.  
 12 Next, he apportions the remaining value to the patents covering 4G LTE. Analyzing  
 13 numerous studies, he approximates the actual number of patents covering a handset  
 14 practicing the 4G LTE standard. Recognizing that 4G LTE patents range from  
 15 claiming inconsequential improvements to patents covering the heart of the improved  
 16 speed provided by 4G LTE, and based on a number of expert opinions, Weinstein  
 17 determines that Odyssey's patents are 1 of 98 high value patent families. Using  
 18 studies and findings employed in similar circumstances by Judge Holderman of the  
 19 Northern District of Illinois, Weinstein apportions the majority of the value to the high  
 20 value patent families. Finally, he apportions the value provided by Odyssey's patents  
 21 to arrive at a reasonable royalty per device. *Id.*, ¶¶156-79, 237-40.

22 *For Approach 2*, Weinstein uses the price difference between a 4G LTE device  
 23 and similar device without 4G LTE. He then removes the costs to Defendants. Next,  
 24 he calculates an apportionment to isolate the value of 4G LTE over other standards.  
 25 He further apportions the remaining value to the patents covering 4G LTE using the  
 26 steps in Approach 1 to arrive at a reasonable royalty per device. *Id.*, ¶¶180-87, 241.

27 *For Approach 3*, Weinstein uses Savage's conjoint survey analysis calculating  
 28 what a consumer is willing to pay for the benefits directly attributable to Dr.

1 Karabinis' invention—a 20% increase in upload speed. [REDACTED]

2 [REDACTED]  
3 [REDACTED] Weinstein apportions only a small percentage of the value to Defendants  
4 to arrive at a reasonable royalty per device. *Id.*, ¶¶188-192, 242-43.

5 *For Approach 4*, Weinstein considers the damages related to a noninfringing  
6 alternative proposed by Defendants: [REDACTED]

7 While Defendants fail to prove that this would provide the same benefits, Weinstein  
8 conservatively calculates the cost of [REDACTED]. Next, he apportions this  
9 cost to the value attributable to the uplink and, using Dr. Chiang's approximation, the  
10 cost attributable to the invention. He then apportions only a small percentage of the  
11 cost to Defendants to arrive at a reasonable royalty per device. *Id.*, ¶¶210-236.

12 Contrary to the assumption animating Defendants' motions, determining  
13 damages "necessarily involves an element of approximation and uncertainty." *Lucent*  
14 *Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1325 (Fed. Cir. 2009).  
15 Furthermore, evaluating the "correctness of facts"—or data points—is for the jury.  
16 *Multimedia Patent Trust v. Apple*, No. 10-CV-2618-H(KSC), 2012 WL 5873711  
17 (S.D. Cal. Nov. 20, 2012) (quoting *Micro Chem., Inc. v. Lextron, Inc.*, 371 F.3d 1387,  
18 1392 (Fed. Cir. 2003)). Defendants suggest that Odyssey must, among many other  
19 things, "determine and compare the values of the hundreds of LTE-essential patents  
20 against the alleged value of the patents-in-suit." Mem.6. But this would render it  
21 virtually impossible to determine the value of *any* standard-essential patent. Tellingly,  
22 Defendants' experts do not go down that path; instead, they adopt many of the same  
23 methodologies and assumptions as Odyssey's experts. They simply arrive at different  
24 conclusions. Nothing about that is surprising, and nothing about the analyses of  
25 Odyssey's experts offends Rule 702 or *Daubert*.<sup>1</sup>

26 \_\_\_\_\_  
27 <sup>1</sup> Defendants filed four separate *Daubert* motions offering numerous arguments with  
28 various degrees of overlap. For the Court's convenience, and to the greatest extent possible, Odyssey has consolidated its responses in sections II.A-C below. These sections contain redactions for confidentiality where necessary. Section II.D provides Odyssey's responses to additional arguments offered only by certain Defendant(s).

## II. ARGUMENT

### A. Weinstein's Damages Opinions Are Admissible.

Defendants' kitchen-sink motions offer dozens of arguments purportedly showing that every opinion offered by Weinstein is inadmissible. But it is important to recognize what is *not* contested. Weinstein bases his approaches on a hypothetical negotiation between Odyssey and each Defendant, carefully considering how the fifteen *Georgia-Pacific* factors would impact that negotiation. *See generally* Ex.9 at i-iv. Defendants do not contest that this methodology is relevant and reliable. Furthermore, Approaches 1, 2, and 3 are all focused principally on analyzing *Georgia-Pacific* factor 13: "The portion of the realizable profit that should be credited to the invention." Ex.9, ¶¶149-192. Defendants do not contest that apportionment under factor 13 is necessary, nor do they contest the reliability of the methodological steps in these approaches.<sup>2</sup> Instead, Defendants focus on the correctness of certain "data points." *See generally* Mem.i. These arguments do not show that Weinstein's approaches are unreliable; they simply reflect disagreement with his conclusions. Defendants also do not suggest that any of these approaches threaten to skew any damages horizon—some of their complaints relate to reductions in the royalty.

This Court has "broad discretion in assessing the relevance and reliability of expert testimony," and it should find that Defendants' complaints can be addressed by "the traditional and appropriate means" of attack: "vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof." *Lucent Techs., Inc. v. Microsoft Corp.*, 837 F. Supp. 2d 1107, 1123 (S.D. Cal. 2011); *Daubert v. Merrell Dow Pharms.*, 509 U.S. 579, 596 (1993).

#### 1. Patent Family Analysis - Approach 1.

Weinstein's "patent family analysis" tracks a method for apportioning the value of standard-essential patents that has been approved by Apple, by Judge Holderman,

<sup>2</sup> Defendants do suggest that the "theory" underlying Approach 4 is "pure fantasy." AppleMem.22; *see also* Mem.17-18. But the theory underlying Approach 4 is Defendants' own purported noninfringing alternative. Ex.9, ¶210.

1 and by Judge Koh. The steps include: first, determine the number of essential patents  
 2 covering the relevant portion of the standard; second, determine the relative value of  
 3 the patents-in-suit to the standard; and third, determine the realizable value of the  
 4 relevant portion of the standard. Ex.9, ¶¶156-179; *see also* Ex.21 (discussing Apple’s  
 5 support for this approach in a letter to the ITU Patent Roundtable at ¶188); *In re*  
 6 *Innovatio IP Ventures, LLC*, No. 11-CV-9308, 2013 WL 5593609, at \*39, \*43 (N.D.  
 7 Ill. Sept. 27, 2013); *GPNE Corp. v. Apple, Inc.*, No. 12-CV-02885-LHK, 2014 WL  
 8 1494247, at \*8 (N.D. Cal. Apr. 16, 2014). In Approach 1, Weinstein begins his  
 9 apportionment for the third step by analyzing the difference in value between a 3G  
 10 device and a 4G LTE device. Ex.9, ¶¶172-176. He relies on Savage’s survey results  
 11 for the relevant “willingness to pay” (WTP), based on actual retail prices paid, for that  
 12 input. *Id.*; Ex.8. Weinstein deducts Defendants’ costs, arriving at an apportioned value  
 13 attributable to the standard. Ex.9, ¶177. He then further apportions to reflect the value  
 14 of the patents-in-suit relative to the standard, as determined in the first two steps. Ex.9,  
 15 ¶¶178-179. Defendants complain about the survey (addressed below), and the  
 16 correctness of the inputs for the second and third steps. These are not grounds for  
 17 exclusion.

18 **a. Complaints regarding the relative valuation of standard-**  
 19 **essential patents.**

20 There is no dispute that standard-essential patents “may have different values,  
 21 based upon, for example, the relative importance of the patent to the standard.” *Apple*  
 22 *Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1323 (Fed. Cir. 2014). Thus, standard-essential  
 23 “patent values are skewed with many patents having little or no value and a small  
 24 minority having significant value.” *Id.* Relying upon this economic reality, one of  
 25 Defendants’ experts—Carla Mulhern—opined that a single standard-essential patent  
 26 represented 5% of the value of Motorola’s entire standard-essential patent portfolio.  
 27 *Id.* at 1324. And the Federal Circuit found that testimony admissible. *Id.* at 1326.

28 For patents essential to standards for wireless communication, it is possible to  
 provide some additional “quantitative rigor and objective verifiability” to this

(already) admissible small-minority-having-significant-value testimony. *Innovatio*, 2013 WL 5593609, at \*39. As Judge Holderman recognized, studies show that “84% of the value in electronics patents is found in the top 10% of electronics patents,” and thus “the court can conclude that any patents providing significant value are likely among the top 10% of all patents essential to the [wireless communication] standard.” *Id.* at \*43; Ex.9, ¶¶170-71. What Defendants call the “10/84 principle,” Mem.2-5, is a more rigorous quantification of the widely acknowledged, top-heavy characteristic of standard-essential patents. And there is no reason to doubt the soundness of Judge Holderman’s approach: his analysis has been cited approvingly by the Federal Circuit and by Judge Koh. *Apple*, 757 F.3d at 1315; *Oracle Am., Inc. v. Google Inc.*, 750 F.3d 1339, 1372 n.16 (Fed. Cir. 2014); *GPNE*, 2014 WL 1494247, at \*8.<sup>3</sup>

The positive reception Judge Holderman’s analysis has received in the Federal Circuit and Northern District of California confirms that this is not an arbitrary rule of thumb setting some baseline for a reasonable royalty, and that it poses no risk of skewing any damages horizon for the jury. The concerns animating *Uniloc* and *VirnetX* are thus not implicated. *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1317 (Fed. Cir. 2011); *VirnetX, Inc. v. Cisco Sys.*, 767 F.3d 1308, 1333 (Fed. Cir. 2014). Those cases warned against applying royalty rates or royalty splits without any connection to the value of the patents at issue. This analysis is designed precisely to get at the value of the patents at issue—it is part and parcel of valuing the standard-essential patents-in-suit relative to the many other patents that may be essential. The “10/84” finding is also tied to the facts of this case, just as it was tied to the facts of *Innovatio*. That case addressed a standard governing wireless communication (Wi-Fi), just as this case addresses a standard governing wireless communication (4G LTE). *Innovatio*, 2013 WL 5593609, at \*43; Ex.10 at 117:9-118:12.<sup>4</sup>

<sup>3</sup> Weinstein points out that this finding is also consistent with the “Pareto principle” of economics which observes that, across disciplines, roughly 20% of the inputs will generally be responsible for roughly 80% of the outputs. Ex.10 at 124:15-125:13.

<sup>4</sup> [REDACTED]



1 In *Apple*, Mulhern permissibly relied upon the imprecise proposition that a  
 2 small minority of standard-essential patents represent a significant percentage of the  
 3 value of the patents essential to the standard. 757 F.3d at 1315, 1323. It follows that  
 4 Weinstein (and Mulhern) may permissibly rely upon the more rigorous and precise  
 5 proposition—supported by studies and case law—that 10% of the relevant standard-  
 6 essential patents represent 84% of the value of the patents essential to the 4G LTE  
 7 standard. *Innovatio*, 2013 WL 5593609, at \*43. The top-heavy characteristic of  
 8 standard-essential patents must be taken into account in the damages analysis, and  
 9 Weinstein has simply used the most quantitatively rigorous studies and most relevant  
 10 findings available to do so. Nothing about that offends Rule 702 or *Daubert*.<sup>5</sup>

11 Defendants argue that the “10/84” finding should have been applied to every  
 12 patent *declared* essential, rather than to those *actually* essential to the standard.  
 13 Mem.5n.3. That approach would have valued *non-essential* patents. Defendants  
 14 further argue that the patents in the top 10% should not be provided the same value.  
 15 Mem.7-8. But providing Dr. Karabinis’ patents with the *average* value of the patents  
 16 in the top 10% only benefits Defendants. Even using Defendants’ [REDACTED]  
 17 [REDACTED] attributable to Dr. Karabinis’ invention, mathematically, the  
 18 patents-in-suit must be valued higher than the average patent family in the 98 high-  
 19 value patent families (the average is approximately 1% per high-value family).  
 20 Defendants also point out that the studies underlying the “10/84” finding indicate that  
 21 patents in the top 1% represent about half the value in the standard—thus suggesting  
 22 that, if they can show that the patents-in-suit are not among the top 1%, an adjustment  
 23 in the numbers might be appropriate. Mem.8. If Defendants would like to make all of

24 \_\_\_\_\_  
 25 <sup>5</sup> Defendants suggest that, rather than using the supported “10/84” finding, Odyssey  
 26 might have completed an exhaustive analysis of the relative value of each and every  
 27 one of the thousands of patents alleged to be part of the standard. Mem.6. That is silly,  
 28 and of course Defendants do not take that approach. Defendants also take issue with  
 the studies underlying the “10/84” finding. Mem.3-4. But the question under Rule 703  
 is whether experts “would reasonably rely on those kinds of facts or data.” FED. R.  
 EVID. 703. And experts would reasonably rely, and have reasonably relied, on those  
 kinds of studies in this context. *Innovatio*, 2013 WL 5593609 at \*43. Indeed, Google  
 Scholar reflects that one of the studies has been cited 415 times. Ex.11.

1 these arguments to the jury, they are free to do so. But these are arguments about  
2 “factual underpinnings,” not methodology.<sup>6</sup> *Apple*, 757 F.3d at 1314.

3 Defendants’ real dispute is not with whether a minority of standard-essential  
4 patents have significant value for the 4G LTE standard; it is with whether Dr.  
5 Karabinis’ patents are among the significant-value patents. But that is a fact question,  
6 not a *Daubert* question. *Id.* Defendants suggest that there is no basis for the  
7 conclusion that these patents are significant-value patents, but that is plainly not true.  
8 There is marketing evidence; there is technical evidence; and there is survey evidence.  
9 Exs.5-6, 8. Increased speed is at the heart of the upgrade to 4G LTE, and Dr.  
10 Karabinis’ invention plays an important role in that increase. *Id.* Indeed, Defendants’  
11 purported noninfringing alternatives—[REDACTED]  
12 [REDACTED]—demonstrate the value of these patents. Dr. Karabinis’ patents are, at the very  
13 least, “of moderate to moderate-high importance to the standard, meaning that they  
14 provide significant value to the standard.”<sup>7</sup> *Innovatio*, 2013 WL 5593609, at \*43.

15 **b. Complaints regarding the “willingness to pay” figures.**

16 Defendants also complain about Weinstein’s use of the “willingness to pay”  
17 (WTP) figures in the third step of his patent family analysis. In particular, Defendants  
18 complain that the WTP figures are based on retail numbers, rather than wholesale  
19 numbers, suggesting that wholesale numbers are more relevant because their  
20 customers are carriers. Mem.16.<sup>8</sup> They also argue that the WTP figures do not  
21 necessarily reflect their actual revenue or their actual profits. Mem.15-16. These are  
22

23 <sup>6</sup> Without an exhaustive valuation of every patent in the standard—an impossible  
24 project—some assumption about proportional value must be made. It is reasonable to  
draw that line at the top 10%. *Innovatio*, 2013 WL 5593609 at \*43.

25 <sup>7</sup> Weinstein *does not* rely on the proposition that Dr. Karabinis’ invention is valuable  
26 because Defendants are infringing. Mem.7; *Oracle Am., Inc. v. Google Inc.*, No. C 10-  
03561, 2012 WL 850705 (N.D. Cal. Mar. 13, 2012). Indeed, the court in *Oracle*  
27 accepted a “ranking” of patents on a three point scale by engineers as an appropriate  
methodology. *Id.* at \*3. Here, Chiang performed a far more rigorous analysis tied to  
the fact of the case than a simple ranking on a three point scale.

28 <sup>8</sup> [REDACTED]

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1 not methodological flaws—a reasonable royalty need not be based on actual revenue,  
2 and is not capped by actual profits. *Powell v. Home Depot U.S.A., Inc.*, 663 F.3d 1221,  
3 1238-40 (Fed. Cir. 2011). The essential question concerns the incremental value  
4 attributable to the invention. The WTP figures, based on actual retail prices, reflect  
5 what customers were actually willing to pay—a reasonable and reliable measure of the  
6 value of the accused functionality.<sup>9</sup> Ex.8; Ex.9, ¶¶189-190; Ex.10 at 192:11-24.  
7 Furthermore, if Defendants believe that wholesale numbers are more relevant than  
8 retail numbers, they are free to make that argument. But “questions regarding which  
9 facts are most relevant or reliable to calculating a reasonable royalty are ‘for the  
10 jury.’” *Apple*, 757 F.3d at 1315. Defendants’ disputes regarding particular revenue,  
11 profit, or WTP figures can be addressed through cross-examination. *Trekeight, LLC v.*  
12 *Symantec Corp.*, No. 04-CV-1349-H(BLM), 2006 WL 5201349, at \*5 (S.D. Cal. May  
13 23, 2006); *Multimedia Patent Trust*, 2012 WL 5873711, at \*1.

14 In any event, there is no reason to think that the WTP numbers are disconnected  
15 from the invention’s footprint in the marketplace. For example, while Defendants  
16 suggest that a WTP for 4G LTE might be less than \$58.33, they ignore that they  
17 charge \$100 or more for cellular connectivity on a tablet. *See* Ex.9, ¶150. And the  
18 suggestion that Defendants did not raise prices for 4G LTE is grossly misleading: the  
19 many millions of Americans who desired to upgrade their fully functional 3G devices  
20 could not simply add on 4G LTE capability—they had to buy completely new 4G  
21 LTE phones and tablets. For Defendants to sell 4G LTE devices to the saturated  
22 American market, consumers had to be willing to pay the full price for a completely  
23 new device. But Weinstein did not use the full WTP for a new device. This suggests  
24 that, if anything, the apportioned WTP figures that Weinstein used as data inputs were  
25 conservative. Defendants’ attempt to use Savage’s WTP results across all devices,  
26 Mem.12, is a misapplication of the data. Odyssey is conservatively applying the data  
27 to the realities of the market—Defendants are not.

28 <sup>9</sup> **Intentionally Omitted In This Brief**



## 2. Patent Family Analysis - Approach 2.

Weinstein's Approach 2 follows the same methodological steps as Approach 1, but it gets at the realizable value of the standard from another angle. Approach 1 measures the delta between the value of devices with 4G LTE and devices with 3G; Approach 2 measures the delta between the value of devices with 4G LTE and devices without cellular connectivity. Ex.9, ¶¶180-187. In addition to their complaints regarding the relative valuation of standard-essential patents (addressed above), Defendants offer complaints regarding the incremental price for cellular functionality used by Weinstein as the alternative data input for Approach 2. Mem.21.

Again, these disputes about the relevance and accuracy of price differences relate to factual inputs, not methodology. And these factual disputes are to be resolved by the jury. *Apple*, 757 F.3d at 1314-15. Defendants suggest that Weinstein's analysis did not account for other immaterial differences between devices with and without cellular connectivity, such as "a simpler drop-down menu." LGMem. at 23. There is no reason to think that these small component variances are important to consumers—or should have any impact on the numbers used by Weinstein—given that the advertised difference is cellular connectivity. Ex.9, ¶150. But if Defendants believe otherwise, they are free to make those arguments to the jury, and to address their concerns in cross-examination. *Trekeight*, 2006 WL 5201349, at \*5; *PixArt Imaging, Inc. v. Avago Tech. Gen. IP (Sing.) Pte. Ltd.*, No. 10-CV-00544-JW, 2011 WL 5417090, at \*5 (N.D. Cal. Oct. 27, 2011); *350 W.A. LLC v. Chubb Group of Ins.*, No. 05-CV-75-WQH, 2007 WL 4365502, at \*21 (S.D. Cal. Dec. 5, 2007) ("[In] the Ninth Circuit, the weakness in the underpinnings of [expert] opinions may be developed upon cross-examination, as such weakness goes to the weight and credibility of the testimony as opposed to its admissibility.") (internal quotes omitted).

## 3. Conjoint Survey Analysis - Approach 3.

Approaches 1 and 2 measured the incremental value of the 4G LTE standard, and then further apportioned that figure based on the relative value of Dr. Karabinis'

1 patents to the 4G LTE standard. Approach 3 measures the WTP for the benefits  
 2 directly attributable to these patents, and then further apportions that figure between  
 3 each Defendant and the carriers. Ex.9, ¶¶188-192. As factual inputs for this  
 4 methodology, Weinstein uses the WTP figures generated by Savage’s conjoint survey,  
 5 which in turn uses Chiang’s determination that 20% of the increase in uplink speed  
 6 from 3G to 4G LTE is attributable to the dynamic allocation of bandwidth claimed in  
 7 Dr. Karabinis’ patents. *Id.*; Exs.6, 8. Weinstein and Chiang also make reference to a  
 8 PC Magazine study on upload and download speed. In addition to complaints  
 9 regarding the conjoint survey (addressed below) and the general relevance of the WTP  
 10 figures (addressed above), Defendants complain about the expert references to the PC  
 11 Magazine study, the apportionment of only 20% of the value of the increase in uplink  
 12 speed, and the further apportionment between each Defendant and the carriers. These  
 13 complaints regarding the “data points” used as inputs in Approach 3, *see generally*  
 14 Mem.i., as well as Weinstein’s decision to further apportion the incremental value  
 15 between each Defendant and the carriers—thereby further lowering the reasonable  
 16 royalty owed—again provide no grounds for exclusion under Rule 702 or *Daubert*.

17 **a. Complaints regarding the PC Magazine study.**

18 The PC Magazine article “Fastest Mobile Networks 2014” offered an analysis  
 19 of upload and download speeds throughout the nation. Ex.13. The analysis was based  
 20 on over 170,000 data points, and the article was authored by Sascha Segan—PC  
 21 Magazine’s lead mobile analyst and the head of its Fastest Mobile Networks project.  
 22 *Id.* at 3, 7. The study was cited by Verizon in an FCC filing to show “independent  
 23 testing” of representative network speeds. Ex.14 at 22. In short, this is the kind of  
 24 study experts reasonably consider when forming an opinion about representative  
 25 network speeds. *See* FED. R. EVID. 703; Ex.9, ¶183 n.300-311; Ex.6, ¶¶106-107.<sup>10</sup>

26 Defendants nevertheless assert that *Daubert* and Rule 702 preclude Chiang and  
 27

28 <sup>10</sup>

Weinstein from referencing this study because a few anonymous Internet readers “routinely criticized” the posted article in accompanying commentary remarks. Mem.10. Defendants note, for example, that one reader called the article “pointless,” and another, “a joke.” Samsung Mem.10 n.5. The “pointless” comment was from “RAWLCM”: “This is pretty much pointless for me because apparently [sic] there is no service worth noting where I live.” Ex.13 at 5. The “joke” comment was from “TheRequiem,” offering the high-minded rebuttal that this was a “retarded article . . . . What a joke.” *Id.* at 6. Once again, if Defendants wish to present these insightful critiques from “RAWLCM” and “TheRequiem” to the jury, they are free to do so. But disputes regarding the accuracy of published studies—whether offered by anonymous Internet commenters or Defendants’ own experts—are matters for cross-examination, not exclusion under *Daubert*. 350 W.A., 2007 WL 4365502, at \*21.

**b. Complaints regarding the 20% input from Chiang.**

Defendants also complain about the fact that Approach 3 excludes 80% of the value attributable to the increase in 4G LTE uplink speed. Mem.8-10. The law is clear that “all expert damages opinions must separate the value of the allegedly infringing features from the value of all other features.” *Commonwealth Sci. & Indus. Research Organisation [CSIRO] v. Cisco Sys.*, 809 F.3d 1295, 1301 (Fed. Cir. 2015). And the “essential requirement for reliability under *Daubert* is that the ultimate reasonable royalty award must be based on the incremental value that the patented invention adds to the end product.” *Id.* (internal quotes omitted). Each of Weinstein’s damages opinions includes such an apportionment, and meets this essential requirement for reliability under *Daubert*. For Approach 3, Weinstein, Savage, and Chiang worked together to capture the incremental value directly attributable to Dr. Karabinis’ invention. To the extent that Defendants’ products use 4G LTE, Chiang’s analysis considers the impact of the patented invention on their products. Apple.Mem.2-3. Chiang determined that the patented dynamic allocation of bandwidth was responsible for 20% of the increase in 4G LTE uplink speed; Savage determined the WTP figures

1 for that incremental increase in speed using a conjoint survey; and Weinstein  
2 determined an apportioned royalty using those WTP figures as a factual underpinning  
3 in his damages methodology. Ex.6, ¶¶85-109; Ex.8; Ex.9.

4 Contrary to Defendants’ suggestion, this is not a case where the link “between  
5 th[e] inputs and [Weinstein’s] final royalty is written in invisible ink.” *Open Text S.A.*  
6 *v. Box, Inc.*, No. 13-CV-4910, 2015 WL 349197, at \*4-7 (N.D. Cal. Jan. 23, 2015).  
7 Nor is Weinstein’s royalty calculation “a black box into which data is fed at one end  
8 and from which an answer emerges at the other.” *GPNE Corp.*, 2014 WL 1494247, at  
9 \*4-6; *see also LaserDynamics, Inc. v. Quanta Computer, Inc.*, 694 F.3d 51, 67 (Fed.  
10 Cir. 2012). Weinstein’s methodology is spelled out at length in his 100+ page report,  
11 and the connections between his “data points”—including those from Chiang and  
12 Savage—and his final royalty figures are detailed in black and white. Ex.9.  
13 Defendants do not dispute that some percentage of the value attributable to the  
14 increase in uplink speed must be excluded from the damages calculus; they simply  
15 think that the percentage should be higher than 80%. Mem.8-10. Once again, that is  
16 fundamentally a dispute about facts, not methodology. *Apple*, 757 F.3d at 1314-15.

17 Furthermore, there is good reason to find Chiang’s underlying 20% data point  
18 relevant and reliable. Defendants misleadingly suggest that Odyssey asked Chiang to  
19 determine a “very crude” approximation of the invention’s impact, and that there were  
20 numerous “simulation[s] or test[s]” available to Chiang for these purposes, but that he  
21 declined to employ any of them. AppleMem.2; *see also* Mem.8-10. That is not true.

22 Chiang testified that, given the multiplicity of variables and the “many dynamic  
23 variations in the condition of communication,” Ex.7 at 169:4-5, persons of skill would  
24 understand that “[i]t is impossible to exactly quantify the proportion of the increase in  
25 the data transfer” attributable to the patented dynamic allocation of bandwidth at  
26 issue, Ex.6, ¶101. While an exact quantification is impossible, the law teaches that an  
27 approximate quantification is necessary. *CSIRO*, 809 F.3d at 1301. Chiang explained  
28 that the most relevant and reliable way to determine this approximate quantification is

1 to consider the major factors contributing to the increase in uplink speed “other than  
2 the dynamic allocation of bandwidth,” and to reduce the percentage attributable to Dr.  
3 Karabinis’ invention accordingly. Ex.6, ¶¶100-01. He noted that there are two primary  
4 dimensions involved in the increase in uplink speed: “One is time, one is frequency.”  
5 Ex.7 at 170:13. Because Dr. Karabinis’ invention addresses the frequency dimension,  
6 a “very crude first cut” approximation would be “roughly half/half.” Ex.7 at 234:18-  
7 21. But Chiang was not satisfied with that “very crude” approximation. He considered  
8 additional contributing factors, including “adaptive modulation techniques, including  
9 higher order modulation, turbo coding, space-time coding, MIMO support for multiple  
10 antennas, optimized deployment density, advanced link layer techniques, and  
11 optimization through self-organizing network techniques, and enhanced hybrid ARQ,  
12 among others”—and reduced the initial 50% figure down to 20% to account for these  
13 additional variables. Ex.6, ¶¶100-01; Ex.7 at 170:5-22, 233:17-236:13.

14 To be sure, this number is approximate. But the law recognizes that there is  
15 “inherent imprecision” in this process. *CSIRO*, 809 F.3d at 1301. The law further  
16 recognizes that an expert opinion may be relevant and reliable even when the nature of  
17 a particular analysis makes “it impractical, if not impossible, to subject the [analysis]  
18 to peer review and publication.” *Summit 6, LLC v. Samsung Elecs. Co.*, 802 F.3d  
19 1283, 1298 (Fed. Cir. 2015). Here, the methodology employed by Chiang is the most  
20 relevant and reliable methodology available. This is confirmed by the fact that if a  
21 “simulation or test” were available, AppleMem.2, Defendants would have used it. But  
22 they did not.<sup>11,12</sup> Chiang’s testimony is reliable and it should not be excluded.

23 This data point in Weinstein’s analysis is also clearly tied to the facts of the  
24 case, and to the invention’s footprint in the marketplace. The increase in uplink speed

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1 from 3G to 4G LTE was significant, and the dynamic allocation of bandwidth claimed  
 2 in Dr. Karabinis' patents plays a substantial role in that increase. Defendants may  
 3 believe that the incremental contribution provided Dr. Karabinis' invention is  
 4 somewhat less than 20%, and they are free to make their arguments to the jury. *See*  
 5 *Apple*, 757 F.3d at 1314-15; 350 W.A., 2007 WL 4365502, at \*21.

#### 6 **4. Infrastructure Savings Analysis - Approach 4.**

7 Weinstein's Approach 4 values Defendants' proposed noninfringing alternative:  
 8 Defendants allege that they could increase uplink speed without infringing Dr.  
 9 Karabinis' patents by [REDACTED].  
 10 Ex.9, ¶210. Despite evidence to the contrary, Weinstein assumes that this alternative  
 11 is realistic and feasible. *Id.* And despite common sense to the contrary, Weinstein  
 12 assumes that Defendants will not be solely responsible for the substantial costs  
 13 associated with *their own* noninfringing alternative. Ex.9, ¶¶229-234. Instead, he  
 14 assumes that Defendants will be responsible only for a small portion of the costs of  
 15 [REDACTED]—those costs reflecting the  
 16 incremental expenditures theoretically attributable to avoiding infringement of Dr.  
 17 Karabinis' invention. Ex.9, ¶¶210-236. In Approach 4, Weinstein first conservatively  
 18 calculates the costs of [REDACTED]. Ex.9, ¶¶223-224, 235. He  
 19 then apportions the costs attributable to uplink (22%) and, using Chiang's  
 20 approximation, further apportions the costs attributable to the invention (20% of  
 21 22%). Ex.9, ¶228. Ultimately, he apportions only a small fraction of the costs  
 22 associated with Defendants' purported noninfringing alternative to Defendants, and  
 23 uses that small fraction to arrive at a reasonable royalty. Ex.9, ¶234.

24 While Defendants do not challenge Weinstein's overarching methodology with  
 25 respect to Approaches 1, 2, and 3, they do attack the overall theory animating  
 26 Approach 4—calling it “pure fantasy.” AppleMem.22; *see also* Mem.17-18. The irony  
 27 is that Weinstein has simply applied relevant calculations to place a reasonable  
 28 valuation on Defendants' own fantasy. Ex.9, ¶210-236. Defendants argue that

1 Approach 4 is based on an “unsupported assumptions” that [REDACTED]  
 2 [REDACTED] Mem.17. But  
 3 Defendants’ purported noninfringing alternative posits [REDACTED]  
 4 [REDACTED] *Someone* has to pay for [REDACTED] To the extent that any  
 5 “theory is pure fantasy,” it is Defendants’ apparent assumption that [REDACTED]  
 6 [REDACTED]  
 7 [REDACTED] To the contrary, there is  
 8 substantial evidence, much of it cited in Weinstein’s report, that [REDACTED]  
 9 [REDACTED] Ex.9, ¶¶214-218.<sup>13,14,15</sup>

10 To the extent that the Court finds Defendants’ purported noninfringing  
 11 alternative to be a reasonable theory for infringement avoidance, Weinstein’s  
 12 Approach 4 provides a reliable valuation of that theory. It is, in fact, the only valuation  
 13 of that theory, as Defendants made no effort to measure the costs or savings associated  
 14 with the steps they propose to take in order to avoid infringing Dr. Karabinis’ patents.  
 15 Defendants’ remaining complaints regarding Approach 4, including Chiang’s 20%  
 16 figure used as a data point in this analysis, are addressed above.

17 **B. Savage’s Survey Opinions Are Admissible.**

18 Defendants’ survey critiques are classic jury disputes. Expert survey opinions  
 19 are broadly admissible: “a jury should be able to determine whether asserted technical  
 20 deficiencies undermine a survey’s probative value.” *Southland Sod Farms v. Stover*  
 21 *Seed Co.*, 108 F.3d 1134, 1143 n.8 (9th Cir. 1997). In the Ninth Circuit, “issues of  
 22 methodology, survey design, reliability, the experience and reputation of the expert,  
 23 critique of conclusions, and the like go to the weight of the survey rather than its  
 24 admissibility.” *Clicks Billiards, Inc. v. Sixshooters Inc.*, 251 F.3d 1252, 1263 (9th Cir.

25  
 26 <sup>13</sup> [REDACTED] Intentionally Omitted In This Brief

27 <sup>14</sup> [REDACTED] Intentionally Omitted In This Brief

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2001). This applies to conjoint surveys. *Microsoft Corp. v. Motorola Mobility, Inc.*, 904 F. Supp. 2d 1109, 1120 (W.D. Wash. 2012). Opposing parties frequently hire their own expert to point to the “numerous ways in which [that expert] would have conducted [the] survey differently.” *PBM Prod., LLC v. Mead Johnson & Co.*, 639 F.3d 111, 124 (4th Cir. 2011); *see also Whirlpool Props., Inc. v. LG Elecs. U.S.A., Inc.*, No. 1:03-CV-414, 2006 U.S. Dist. LEXIS 1378, at \*11-12 (W.D. Mich. Jan. 20, 2006). But the proof is in the pudding, and if those parties have confidence in their critiques, they will conduct a new survey without the purported flaws. *See Teaching Co. Ltd. P’ship v. Unapix Entm’t, Inc.*, 87 F. Supp. 2d 567, 583-84 (E.D. Va. 2000). Defendants hired their own survey experts, but not one elected to conduct an alternative WTP survey—seriously undermining their arguments and credibility on this issue. *Whirlpool Props.*, 2006 U.S. Dist. LEXIS 1378, at \*10-12, 18-19.

Where products contain multiple characteristics of consumer interest, like the infringing products, economists can use conjoint analysis to value individual characteristics. When price is a characteristic, consumers’ WTP for the other characteristics can be calculated. In this case, Dr. Karabinis’ invention contributes to significant enhancements in LTE uplink speed. Savage was asked to conduct, and did conduct, a rigorous conjoint analysis to determine the WTP for the incremental benefits of Dr. Karabinis’ invention. Savage also analyzed market data from the IDC of smartphone sales from 2010-2015 and determined consumers’ WTP for 4G LTE over 3G. Savage’s findings were then used in Weinstein’s analysis.

Savage employed a method commonly used in the telecommunications choice literature to measure consumer WTP for the incremental improvements of the invention. Ex.8, ¶20. He first developed the choice experiments—survey questions comparing hypothetical smartphones that are identical but for five characteristics: storage capacity, screen size, download speed, upload speed, and price. Almost 1000 respondents then selected between three hypothetical smartphones with varying characteristics, after which they were asked whether they would have actually



1 purchased the smartphone they chose at the stated price. This choice experiment was  
 2 repeated seven more times for each respondent—Savage was thus able to collect more  
 3 than 7,400 observations in total. *Id.* The results demonstrated consumer WTP for a  
 4 specified increase in speed. *Id.*, ¶¶31-35. This methodology has been published by  
 5 leading economists, including a Nobel prize winner. *Id.*, ¶21 n.4.

6 To calculate the microeconomic effect of Dr. Karabinis' patents, Savage  
 7 discussed their benefits with Chiang. Chiang concluded that, without Dr. Karabinis'  
 8 invention, the average LTE upload speed for Defendants' products would fall by  
 9 about 17.6%. *Id.*, ¶11. With this information and his survey analysis, Savage valued  
 10 the consumer WTP for the incremental improvements of Dr. Karabinis' invention.

11 As a separate analysis, and to confirm the accuracy of his survey results, Savage  
 12 performed a statistical analysis of market data to measure the value of a 4G LTE  
 13 device over a 3G device to a consumer. *Id.*, ¶36. Following standard economic  
 14 practice, Savage estimated an empirical model of market demand in the differentiated  
 15 product market of smartphones. The model is based on the random utility model of  
 16 individual consumer choice. *Id.*, ¶37. Savage analyzed quarterly data on smartphone  
 17 model sales and product characteristics from 2010Q1 to 2015Q2 to estimate the  
 18 representative consumers' WTP for storage capacity, screen size, and network  
 19 capability. The results of Savage's modeling both confirmed the precision of his  
 20 survey results and yielded consumers' WTP for 4G LTE over 3G. *Id.*, ¶50.

### 21 **1. Savage's survey measures WTP for increased upload speeds.**

22 Defendants' criticism that Savage's survey has no connection to LTE misses the  
 23 mark. Mem.13-14. "[D]issatisfaction with the description of the patented features" in  
 24 a survey "goes to weight, not admissibility." *Apple Inc. v. Samsung Elecs. Co.*, No.  
 25 11-CV-01846-LHK, 2012 U.S. Dist. LEXIS 90877, at \*39 (N.D. Cal. June 29, 2012).  
 26 Savage designed choice experiments that had consumers express preferences in the  
 27 range of real-world speeds. Ex.8 at 46; Ex.16 at 199:4-25, 276:1-10. The fact that the  
 28 survey did not state the term "LTE" is irrelevant—consumers expressed their

1 valuations of actual speeds. And Savage was measuring the representative consumer's  
2 valuation for *additional speed*, not their valuation for the term "LTE."

3 Defendants wrongly compare this case to *Fractus, S.A. v. Samsung*, No. 6:09-  
4 CV-00203, 2011 WL 7563820 (E.D. Tex. Apr. 29, 2011). Savage's opinion is readily  
5 distinguishable. In *Fractus*, the patented invention was sufficient, but *unnecessary*, to  
6 enable an internal antenna. *Id.* at \*13. Here, Dr. Karabinis' patents are *necessary* to  
7 achieve the technological benefits that consumers were surveyed on and are Savage's  
8 model is fine-tuned to the patent functionality characteristic levels that it can be used  
9 to calculate exactly how much consumers are willing to pay for the specific marginal  
10 increase in speed Chiang opines results from the incremental benefits of the patents.<sup>16</sup>

## 11 **2. Savage's survey comported with accepted methodology.**

12 Defendants complain that Savage tested only a portion of the attributes of each  
13 product. Mem.14-15. This disregards peer-reviewed literature concluding that using  
14 six or fewer variables leads to better predictive results because survey respondents are  
15 not overwhelmed by too much data. *E.g.*, Ex.17 at 8-9; Ex.18 at 594.<sup>17</sup> Apple's expert  
16 agrees: "from a scientific perspective, it is unnecessary to include all features of a  
17 product when designing a conjoint study. Such a requirement is not consistent with  
18 the academic literature or commercial use of conjoint studies." *TV Interactive Data*  
19 *Corp. v. Sony Corp.*, 929 F. Supp. 2d 1006, 1025 (N.D. Cal. 2013). Defendants are  
20 asking to exclude Savage's survey for comports with accepted methodology.

21 Defendants' reliance on *Oracle*, 2012 WL 850705, is misplaced: (1) Oracle  
22 used a conjoint analysis to measure *market share*, not consumer willingness to pay for  
23 a specific feature (compare *Id.* at \*28 with Ex.8, ¶12); (2) Oracle's expert improperly  
24 focused on the patented features, Savage did not (compare *Oracle*, 2012 WL 850705  
25

26 <sup>16</sup> Defendants' reliance on *NetAir* is equally unavailing as that case involved an open-  
27 ended question survey as opposed to a conjoint analysis. *NetAir Techs., LLC v. Apple*  
28 *Inc.*, No. 10-03257 (C.D. Cal. Oct. 23, 2013) (Case No. 15-cv-01735, D.I. 260-5).

<sup>17</sup> [REDACTED]

1 at \*31 (surveying 7 features, 3 of which were covered by the patented functionality)  
 2 with Ex.8, ¶24 (Savage used 5 features, only one of which was covered by the  
 3 patented functionality)); (3) the survey results in *Oracle* were irrational, while here  
 4 Savage confirmed that his survey results by comparing them to the market data  
 5 (compare *Oracle*, 2012 WL 850705 at \*33 with Ex.8, ¶50); and (4) unlike in *Oracle*,  
 6 Savage offered a principled basis for selecting the features tested in the survey  
 7 (compare *Oracle*, 2012 WL 850705 at\*32 with Ex.8, ¶27).

### 8 **3. WTP survey respondents understood the questions.**

9 The respondents understood the survey questions, even if some lacked in-depth  
 10 technical knowledge of “Mbps.” Consumers make purchasing decisions every day  
 11 without having in-depth technical knowledge. Defendants cherry-pick responses from  
 12 prior focus groups and ignore Savage’s overall conclusions that the respondents  
 13 understood the survey questions. Ex.16 at 187:16-189:1. Given that the “questionnaire  
 14 terms were themselves defined in the surveys and given to respondents who owned  
 15 [the subject devices], and were arguably more likely to understand technical terms[,]”  
 16 the clarity of the survey questionnaire is a question of fact, best resolved at trial  
 17 through cross examination.” *Microsoft Corp. v. Motorola Inc.*, 904 F. Supp. 2d 1109,  
 18 1120 (W.D. Wash. 2012). Disputes about potential technical deficiencies of a survey  
 19 go to its weight, not its admissibility. *Southland*, 108 F.3d at 1143 n.8.

### 20 **4. Savage’s WTP calculations are relevant.**

21 WTP “is a proper measure to use for purposes of determining the royalty that  
 22 would emerge from a hypothetical negotiation in that it reflects the value of the  
 23 accused functionality.” Ex.10 at 192:19-22. Weinstein’s use of consumer WTP in his  
 24 royalty calculation is thus entirely proper. While the statute specifies that damages  
 25 must be no less than “a reasonable royalty for the use made of the invention by the  
 26 infringer,” 35 U.S.C. § 284, damages are not “capped” by the “infringer’s net profit  
 27 margin.” *Douglas Dynamics, LLC v. Buyers Prods. Co.*, 717 F.3d 1336, 1346 (Fed.  
 28 Cir. 2013). Large companies that offer many types of products may elect to sell

1 certain products for little (or no) profit for a period of time to gain market share. If the  
 2 infringer's profit were the ceiling, an infringer could copy an inventor's technology,  
 3 cheaply manufacture the infringing product overseas, and sell it in the U.S.—and then  
 4 claim that the reasonable royalty damages are limited because the infringer makes  
 5 little (or no) profit on that product line. The law does not permit such inequity.<sup>18</sup>

6 Furthermore, Defendants' argument that its customers are carriers, not end-  
 7 users, is not supported by the facts. [REDACTED]

8 [REDACTED]  
 9 [REDACTED] Ex.9, ¶¶214-218.<sup>19</sup> Defendants market their devices to end-users.  
 10 And again, Defendants wholesale versus retail argument fails to acknowledge that a  
 11 reasonable royalty is not "capped" by the infringer's profit.

12 Finally, Weinstein explained that the infringing tablets provide value generated  
 13 by "the inclusion of cellular functionality." Ex.9, ¶¶150, 241 n.357. Savage's WTP  
 14 determines this value using smartphones and Weinstein properly applies this value to  
 15 tablet and smartphone 4G LTE devices with this functionality.<sup>20</sup>

### 16 C. Armstrong's Marketing Opinions Are Admissible.

17 Armstrong's expert testimony that Defendants market speed as a key benefit for  
 18 consumers to upgrade to its 4G LTE devices is admissible. *First*, Armstrong has  
 19 "specialized knowledge that will assist the trier of fact to understanding the evidence."  
 20 FED. R. EVID. 702(a). As Professor of Creative Brand Management and over 35 years  
 21 of industry experience, he can determine what Defendants' marketing messages are  
 22 intended to convey. Ex.5 at 1–2. *Second*, his analysis "is based upon sufficient facts

23  
 24 <sup>18</sup> The lone case cited by Defendants does not support such an inequitable result. In  
 25 *Apple Inc. v. Samsung Elecs. Co.*, No. 11-CV-01846-LHK, 2014 U.S. Dist. LEXIS  
 26 29721, at \*85 (N.D. Cal. Mar. 6, 2014), the court stated that it was "not addressing a  
 Daubert challenge" to Apple's WTP conjoint survey. Rather, it was "weighing the  
 persuasiveness" of the survey "as evidence of causal nexus" in an injunction context.

27  
 28 <sup>20</sup>

Intentionally Omitted In This Brief



1 and data,” FED. R. EVID. 702(b), as he reviewed extensive internal and external  
 2 Defendant and carrier materials, including market research, advertisements, and  
 3 websites, demonstrating how 4G LTE devices were marketed. Ex.5 at 2. *Third*, his  
 4 “testimony is the product of reliable principles and methods,” FED. R. EVID. 702(c), as  
 5 he applied his real-world experience to interconnect a broad array of materials to show  
 6 a comprehensive marketing scheme tying 4G LTE with speed. Ex.5 at 4–20. An  
 7 argument that a marketing expert’s “methodology is unreliable because he applies his  
 8 personal experience and knowledge of industry customs and practices” is  
 9 “misguided.” *Goldberg v. 401 N. Wabash Venture LLC*, No. 09-CV-6455, 2013 WL  
 10 212912, at \*5 (N.D. Ill. Jan. 18, 2013). *Fourth*, he “applied the principles and methods  
 11 reliably to the facts of the case,” FED. R. EVID. 702(d), by using Defendants’ and the  
 12 carriers’ own customer-facing communications, showing how they leveraged their  
 13 understanding of consumers’ desire for speed to drive upgrades to 4G LTE devices.  
 14 Ex.5 at 7–15. Armstrong’s expert report is admissible and should not be excluded.<sup>21</sup>

15 **D. Motorola’s Additional Complaints Are Meritless.**

16 **1. Savage’s survey and market data analysis reflect the market.**

17 Savage’s survey and market data analysis focused on “high-end” smartphones.  
 18 Savage determined high-end smartphones were the relevant product market for  
 19 economic analysis: “data indicate that high-end smartphones are the relevant product  
 20 market for economic analysis.” Ex.8, ¶15.

21 Defendants’ complaint that Savage’s results are inapplicable to the Accused  
 22 Products that are not classified as “high-end,” Mem.11-13, goes to the weight of the  
 23 evidence and not the admissibility. *Fujifilm Corp. v. Motorola Mobility LLC*, No. 12-  
 24 CV-03587, 2015 WL 1737951, at \*5, 6 (N.D. Cal. Apr. 8, 2015) (finding that survey  
 25

26 <sup>21</sup> Defendants’ reliance on *Brighton Collectibles v. Renaissance Group*, No. 06-1115,  
 27 2008 WL 5500659 (S.D. Cal. May 13, 2008), is misplaced. Unlike the expert in  
 28 *Brighton*, Armstrong relied on documents *produced in this case* to inform his analysis.  
 Moreover, *Johns v. Bayer Corp.*, No. 09-cv-1935, 2013 WL 1498965, at \*28 (S.D.  
 Cal. Apr. 10, 2013) is in apposite because the false advertising issue related to what  
 was understood by consumers, as opposed to marketed by manufacturers.

1 respondents of only “mid/high tier smartphone owners” with “above average interest  
2 in the [camera] features” were not so unique as to “grossly” distort the survey results  
3 and to render the survey either irrelevant or inconsistent with accepted principles); *see*  
4 *also Smartflash LLC v. Apple Inc.*, No. 13-CV-00447, 2014 WL 7336213, at \*4 (E.D.  
5 Tex. Dec. 23, 2014) (rejecting argument that survey evidence should be excluded  
6 because the expert “surveyed only ‘regular users’ instead of all ‘purchasers’ of  
7 accused devices;” finding that this argument is “to the weight of the survey evidence,  
8 not its admissibility.”).<sup>22</sup>

9 And it is Weinstein, not Savage, that applies Savage’s calculation to “low-end”  
10 smartphones and tablets. Weinstein has a principled basis for doing so, Ex.10 at  
11 202:4-205:20. As Weinstein explained, a consumer upgrading from 3G to 4G at the  
12 low-end “is doing so more to get the speed associated with the patented functionality  
13 than other features” and the WTP for those consumer is understated by applying  
14 Savage’s results because “they are probably moving from a device which already has  
15 almost identical features to the one they’re purchasing, except for the higher speed  
16 associated with 4G.” *Id.*

17 The economic reality is that there are more cell phones in the U.S. than people.  
18 Ex.27. When considering whether to upgrade a phone, a typical consumer thus has to  
19 decide if the “new” features (such as 4G LTE) that she does not have on her current  
20 phone are worth the full cost of the “new” phone. Savage takes a more conservative  
21 approach and compares the difference in cost between a high-end 3G phone and a  
22 high-end 4G LTE phone even though the consumer has no way to upgrade her current  
23 phone and must actually pay the full price to have the next generation of the cell  
24 phone.

## 25 2. Complaints regarding Defendants’ costs.

26 Although Weinstein accounted for Defendant’s costs as appropriate considering

27 <sup>22</sup> Defendants’ reliance on *Fractus, S.A. v. Samsung* is misplaced. 2011 WL 7563820  
28 at \*1. Neither Defendants nor Odyssey take the position that infringement by “low-  
end” smartphones is any different than that of “high-end” smartphones.

the context of the various approaches, Defendant's complain that he failed to give enough credit for certain costs related to [REDACTED]. Mem.21-22. Defendant fails to identify any specific costs related to infringement of Dr. Karabinis' patent that Weinstein did not remove as part of his detailed apportionment. But again, if Defendants wish to make these vague costs arguments to the jury they are free to do so, and to address their concerns in cross-examination. *Trekeight*, 2006 WL 5201349, at \*5; *PixArt Imaging, Inc. v. Avago Tech. Gen. IP (Sing.) Pte. Ltd.*, No. 10-CV-00544-JW, 2011 WL 5417090, at \*5 (N.D. Cal. Oct. 27, 2011); *350 W.A. LLC v. Chubb Group of Ins.*, No. 05-CV-75-WQH, 2007 WL 4365502, at \*21 (S.D. Cal. Dec. 5, 2007) ("[In] the Ninth Circuit, the weakness in the underpinnings of [expert] opinions may be developed upon cross-examination, as such weakness goes to the weight and credibility of the testimony as opposed to its admissibility.") (internal quotes omitted).<sup>23</sup>

### 3. Complaints regarding the revenue split with carriers.

Weinstein's Approach 3 includes an additional apportionment: recognizing that the carriers will keep some of the value attributable to the incremental increase in uplink speed provided by Dr. Karabinis' invention, Weinstein further apportions among each Defendant and the carriers. Ex.9, ¶191. Defendants complain about the calculations in this step of Weinstein's methodology noting that the final numbers changed when Weinstein accounted for the additional sales and rate information that Defendants provided after the initial reports were prepared. Mem.19. According to these Defendants, the fact that plugging updated numbers into Weinstein's damages calculations results in an updated royalty proves that "Weinstein's method is necessarily unreliable." Mem.19. That is plainly not true. The fact that plugging updated numbers into the damages calculations results in an updated royalty simply

<sup>23</sup> Defendants reference Odyssey's communications with other entities that have not been shown to be practicing 4G LTE. Mem.20. The fact that certain entities did not believe they had a need for a license is irrelevant to the hypothetical negotiation with Defendant that needs a license.

1 reflects that Weinstein’s methodology is closely tied to the economic realities of the  
2 case. Furthermore, Defendant’s split of revenue did not go up with the additional  
3 sales—it dropped (as did the royalty rates). *Compare* Ex.9 at Exh.13.4 *with* Ex.24 at  
4 Exh.13.4A. If Defendants believe that Weinstein should have used a carrier split that  
5 is not linked with sales or revenue, or a carrier split that results in an increased royalty  
6 with increased sales or revenue—or no carrier split at all—they are free to make that  
7 argument to the jury. But the fact that increased sales result in a carrier split that is  
8 more favorable for Defendants does not make Weinstein’s methodology irrelevant or  
9 unreliable.

### 10 **III. CONCLUSION**

11 Odyssey respectfully requests that the Court deny Defendants’ *Daubert* motions  
12 in their entirety.

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1 DATED: August 29, 2016

Respectfully submitted,  
MCKOOL SMITH, P.C.

2  
3  
4 By /s/ John B. Campbell  
5 John B. Campbell

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7 Attorney for Plaintiff  
8 ODYSSEY WIRELESS, INC.  
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**CERTIFICATE OF SERVICE**

The undersigned hereby certifies that a true and correct copy of the foregoing document has been served on this date to all counsel of record who are deemed to have consented to electronic service via the Court's CM/ECF system per CivLR 5.4(d).

I declare under penalty of perjury of the laws of the United States that the foregoing is true and correct. Executed August 29, 2016 at Austin, Texas.

/s/ John B. Campbell

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